Governor's Council on Innovation and Technology

















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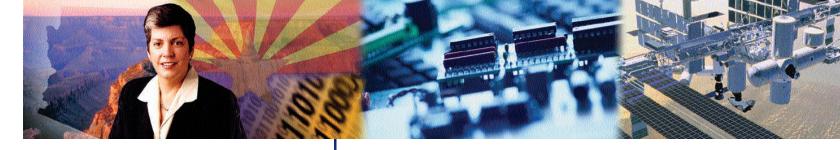


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Governor's Council on Innovation and Technology:

Building Arizona's Knowledge-based Economy

February 10, 2004

Governor Janet Napolitano has given us an incredible opportunity to shape the future of Arizona.

The Covernor's Council on Innovation and Tachnology was actablished to avoid an occanomic Governor Janet Napolitano has given us an increatible opportunity to snape the future of Arizona The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic The Governor's Council on Innovation and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and Technology was established to create an economic Theorem and The Governor's Council on innovation and Technology was established to create an eco. development vision, focused on building Arizona's innovation and technology capacity. Our primary charge was to articulate and now execute strategies that ensure Arizona's competitive

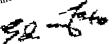
Our primary charge was to articulate and now execute strategies that ensure ArtZona's competitive position in the global economy. Our recommendations in the areas of technology commercialization, provided formation, and technology, business infraction charge in the formation and technology. position in the global economy. Our recommendations in the areas of technology commercializat.

capital formation and technology business infrastructure shore up the foundation necessary to build a knowledge-hased economy. Governor Napolitano has demonstrated her hands-on leadership and her passion for creating a more build a knowledge-based economy.

Governor Napolitano has demonstrated her hands-on leadership and her passion for creating a more vibrant technology – focused economy. The Governor and her administration, state legislators, our vibrant technology – focused economy. The Governor and her administration, state legislators, our vibrant technology – focused economy. The Governor and her administration to relate the related to the related technology of the property Vibrant recunology—tocused economy. The Governor and ner administration, state legularity to the contract to play.

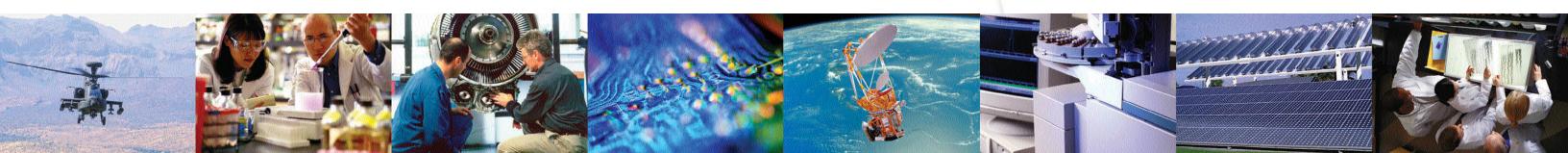
University, business and community leaders and you all have important roles to play. The Council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the Governor's charge by embracing this challenge to produce and the council has accepted the governor to be considered to the council has a counci The Council has accepted the Covernor's charge by embracing this challenge to produce and inspire tangible and measurable results. The momentum is ours to seize and build upon. Working inspire tangible and measurable results. inspire tangible and measurable results. The momentum is ours to seize and build upon. Working together we will make certain Arizona's leadership position in the knowledge-based economy.

Thank you for your dedication and commitment to our shared future.



Summan

Governor's Council on Innovation and Technology



Building Arizona's Innovation and Technology Capacity

Vision:

Arizona – A recognized global leader in discoveries, innovation and technology development.

Arizona's Targeted Industries

Established

Aerospace and Defense Semiconductor/Electronics

Expanding

Advanced Manufacturing Communications Information Technology Optics

Emerging

Bioscience Sustainable Systems

Strategic Themes

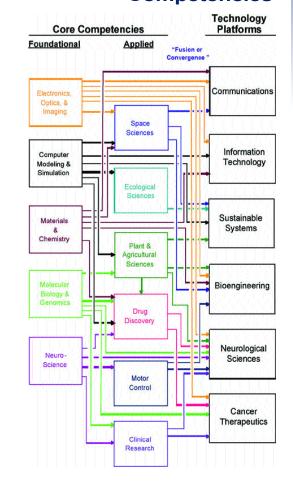
- **1. Leadership and Commitment –** Public and private building Arizona's knowledge-based economy is a long-term commitment not to be driven by the need to realize short-term gains.
- **2. Build on Arizona's Core Competencies –** Leveraging our existing strengths and developing targeted strategies will magnify Arizona's competitive position in the global marketplace.
- **3. Investment vs. Expenditure** Sound investment in the knowledge-based infrastructure now will result in improved quality of life in the future.
- **4. Collaboration and Partnership** The public, academic and private sectors must be engaged and emphasize unity working toward a common vision;
- **5.** Accountability: measurements; shared responsibility Emphases on shared responsibility between the private and public sectors, with clearly defined measures are paramount to establishing public trust and achieving economic success.

Critical Factors to Arizona's Success:

- **1.** Technology commercialization amendment to Arizona's constitution is critical to improve the entrepreneurial business climate;
- **2.** Access to capital that supports innovation and technology development is essential to Arizona's global competitiveness in the 21st century;
- **3.** Knowledge leaders and highly skilled talent, through improved education at all levels, will be determining factors as we grow the knowledge-based economy;
- **4.** Retention and growth of Arizona's existing technology companies is the foundation on which to diversify our economic base;
- **5.** World-class research through the pursuit of a national laboratory is paramount for to leverage discoveries, innovation and technology development;
- **6.** An Arizona office in Washington, D.C. will help secure federal funding to help build infrastructure and fund research;
- **7.** Arizona innovation and technology competitiveness must be aggressively communicated to the world to brand the State as a recognized global leader;
- **8.** Our proximity to Mexico offers a unique opportunity to build regional and global markets;
- **9.** An Innovation and Technology Development Scorecard will measure progress and promote shared accountability between the private and public sectors.

Positioning Arizona and Its Research Universities

Science and Technology Core Competencies



Strategic Plan Recommendations

Recommendation 1: Create technology commercialization programs to enhance Arizona's science and technology core competencies and promote entrepreneurship

Technology developed in Arizona should be commercialized in Arizona. Discoveries, innovation and cutting-edge technology must be supported by a business climate based on policies and programs that encourage the entrepreneurial culture as well as collaboration between the private sector and the universities.

Recommendation 2: Implement public-private capital formation programs to support research and access to early-stage capital

Arizona can no longer afford to lose its knowledge-based enterprises to other states. While patents and R&D spending in Arizona may indicate a good level of innovation, the lack of venture capital indicates the difficulty in commercializing innovation.

Recommendation 3: Establish a favorable business environment that transforms Arizona into a recognized leader in the knowledge-based economy

Policies of the industrial age cannot sustain competitive, quality growth particularly in light of lower-cost labor options abroad. Arizona must focus resources on the retention and growth of technology companies, develop its knowledge-based core competencies and research, create supply chain opportunities that benefit resident employers and capitalize on access to global markets.

Recommendation 4: Promote Arizona's Global Knowledge-Based Assets

Arizona leads in semiconductor employment and aerospace/defense electronic component manufacturing, and is developing strengths in the bioscience and software industries. Marketing Arizona's knowledge assets internationally must spring from a unified brand.

Recommendation 5: Develop Programs to Improve Education and Knowledge Worker Development

Arizona's economic future depends on the quality of education and workforce - the number one priority for businesses considering expansion or location opportunities. The global marketplace of the 21st century demands a highly skilled workforce to allow companies to rapidly produce goods and services marked by innovation, knowledge and quality.

Recommendation 6: Improve Relationships with Federal Leadership and Identify Funding Opportunities

Arizona sends more money to Washington D.C. than it receives. Federal research funding is critical to support innovation, discoveries and technology development. It is important to receive our fair share of monies available for research and development.

Recommendation 7: Improve Arizona's Telecommunications Infrastructure

Arizona telecom services are challenged by distribution rather than volume. Near term financial conditions among the major service providers constrain efforts to increase telecommunications services to more rural areas of the state. Change in the current geographic pattern of telecom services will expand and link education with economic and workforce development in the rural areas and increase opportunities in the rest of the state.

